

# Work Order ID 56913

March 12, 2010 1:28:47 PM

Page 1

Item ID: D3335-1

Accept

Revision ID:

Item Name: Short Spring

Start Date: 12/03/2010 Start Qty: 70.00

Required Date: 26/03/2010 Req'd Qty: 70.00

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3335

Rev D

100

0.00



Small Fab

Memo

0.00

Small Fab

Cut per drwg D3335 RevD

110

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

120

Identify as per dwg & Stock Location: 051

0.00



Packaging

Memo

0.00

Packaging



Cust Item ID:

Customer:



8/10/04/12 (4)

8/10/04/13

(46)

8/10/04/14 (4)

**Work Order ID 56913**

March 12, 2010 1:28:47 PM

Page 2



Item ID: D3335-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Short Spring

Start Date: 12/03/2010 Start Qty: 70.00



Cust Item ID:

Required Date: 26/03/2010 Req'd Qty: 70.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/04/15 *[Signature]*  
10-4-14  
(4)

# Picklist Print

March 12, 2010 1:28:51 PM

Page 1

Work Order ID: 56913

Parent Item: D3335-1

Parent Item Name: Short Spring

Comments: IPP A□06.02.10□New issue□ EC

Start Date: 12/03/2010

Required Date: 26/03/2010

Start Qty: 70.00

Required Qty: 70.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3335 Spring		Manufactured	No				Each	14.5000	35.0000			

*Handwritten:* 10/04/12

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST051

14.5

31593

10

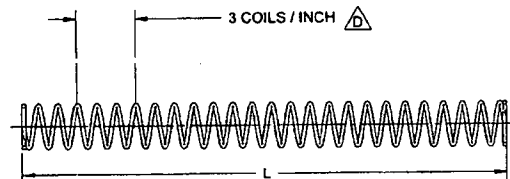
44089

4.5

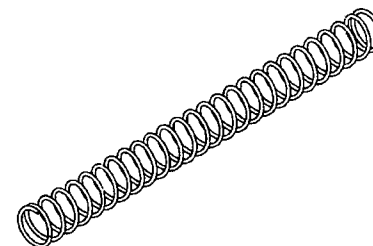
*Handwritten:* 4X

*Handwritten:* 7

# **SPECIFICATION CONTROL DRAWING**



Ø0.420



**D3335-X SPRING**

DART-PIN	L (In)	
D3335-1	4.38	B
D3335-3	7.63	B
D3335-5	1.20	C

**RELEASED**  
9/2/05 MB

56913

## **NOTES:**

- 1) MATERIAL: SPRING STEEL, Ø0.035 WIRE
- 2) FINISH: LPS PROCYON
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) POSSIBLE SUPPLIER: VICTORY SPRINGS, LENGTH REQUIRED: 12"

DESIGN	MB	DART AEROSPACE LTD	REV. D
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MB	DRAWING NO.	
MFG. APPR.	MB	D3335	SHEET 1 OF 1
APPROVED	MB	TITLE	SCALE
DE APPR.	MB	SPRING	NTS
DATE	08.06.05	<small>COPYRIGHT © 2004 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR REPRODUCTION IN ANY FORM WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.</small>	

Date: Monday, 15/12/2008 2:01:45 PM  
 User: Julie Dawson

## Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : SPRING
<b>Job Number</b> : 44089	
<b>Estimate Number</b> : 10919	
<b>P.O. Number</b> :	<b>Part Number</b> : D3335
<b>This Issue</b> : 15/12/2008 <b>S.O. No.</b> :	<b>Drawing Number</b> : D3335 REV C
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : 11 <b>Type</b> : PURCHASED PARTS	<b>Drawing Revision</b> : C
<b>Previous Run</b> : 31593	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 22/12/2008 <b>Qty:</b> 20 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : <u>2008.12.15</u>	
<b>Comment</b> : Est. A 04.11.23 New issue: KJ/JLM esr B 07.04.04 rev C dwg EC	

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
----------------	------------------------------	----------------------

1.0	PG	PURCHASING
-----	----	------------



Comment: PURCHASING

Issue P/O: 7843

0.035" 302 SS, 0.420"OD +/-0.015, 12.00" long, 40 coils per 12.00" length

Possible Supplier: Victory Spring

Material release note is required

2008/12/16 (20)

2.0	D3335P	Spring
-----	--------	--------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 20.0000 Each(s)  
 Spring

3.0	PACKAGING 1	PACKAGING RESOURCE #1
-----	-------------	-----------------------



Comment: PACKAGING RESOURCE #1

Recieve &amp; Inspect for Transit Damage

Ensure Material Release Note is attached

2008/12/22 (20)

4.0	QC6	DIMENSIONAL CHECK
-----	-----	-------------------



Comment: DIMENSIONAL CHECK

2008.12.23 (20)

5.0	PACKAGING 1	PACKAGING RESOURCE #1
-----	-------------	-----------------------



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 5886
2008/12/24 (20)

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 15/12/2008 2:01:45 PM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SPRING

Job Number: 44089

Part Number: D3335

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



u 08.12.24

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

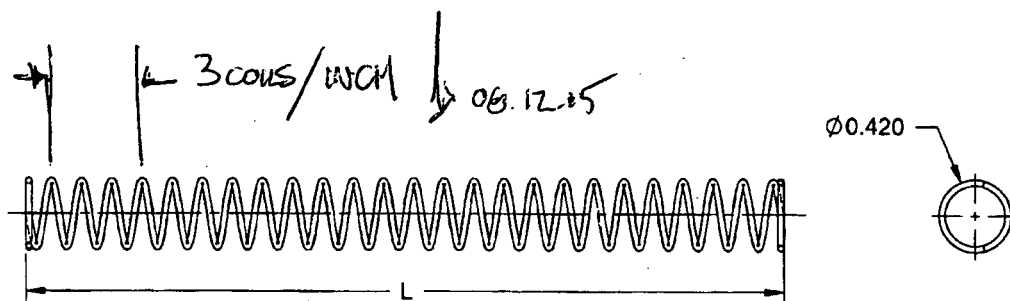




DESIGN: RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D3335	REV. C SHEET 1 OF 1
DATE 05.12.19		TITLE SPRING	SCALE 1:1
A	04.12.07	NEW ISSUE	
B	05.08.11	4.38 WAS 4.13; 7.63 WAS 6.80	
C	05.12.19	ADDED D3335-5, CHANGED FINISH	

RELEASED  
06/03/09

## SPECIFICATION CONTROL DRAWING



UNDER REVIEW  
03.05.05/124  
ADD SPRING  
PITCH

DART P/N	L (in)
D3335-1	4.38
D3335-3	7.63
D3335-5	1.20



### NOTES:

- 1) SUPPLIER: VICTORY SPRINGS. LENGTH REQUIRED: 12".
- 2) MATERIAL: SPRING STEEL, Ø0.035 WIRE
- 3) FINISH: LPS PROCYON
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 44089

COPYRIGHT © 2004 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

**VICTORY  
SPRING**  
convenient consistent correct

**PACKING SLIP**

18966

#2, 6104 - 82 Ave  
Edmonton AB T6B 0E7  
t + 780 442 4020  
f + 780 466 8000

**BILL TO:**

Dart Aerospace Ltd  
1270 Aberdeen St  
Hawkesbury ON K6A 1K7

**SHIP TO:**

18-Dec-08		7843		Fedex 151793240	
20	D3335P Spring				
854455327		NET 30 DAYS			

## CERTIFICATE OF CONFORMANCE

REPORT FOR : Dart Aerospace	DATE: 12/18/2008
PART/DRAWING #: D3335P Spring	PO # 7843
SPRING DESCRIPTION: Compression Spring	QUANTITY: 20

CHARACTERISTIC	SPECIFIED	MEASURED	NOTES
Material type	✓ SS T302	yes	
Material diameter	✓ 0.035	0.035	
Coil O.D.	✓ .420 +/- .015	0.413	
Number of Coils	✓ 40	40.25	
Free Length	✓ 12	12.25	
Helix			
End type	C&NG	yes	

### COMMENTS

All Certificate attached: no  
 Material Heat Number: N/A

Inspected by: *Jeremy Burnowes*